

ABSTRACT OF THE DISCLOSURE

A predistortion digital linearizer is disclosed. The linearizer includes a predistorter for distorting a digital input signal in the digital domain to have an opposite characteristic to a nonlinear distortion characteristic of a high power amplifier, in accordance with a feedback signal. An adaptation processing unit controls predistortion of the digital input signal using a base band signal outputted from a feedback unit and the digital input signal which has been delayed for a prescribed period of time. Since the input signal of the digital linearizer is directly predistorted in the digital domain, the accuracy of the predistortion can be enhanced. In addition, since the level of the digital input signal is controlled by the gain control signal and then predistorted, so that the output level of the predistortion digital linearizer can be controlled to a desired level.